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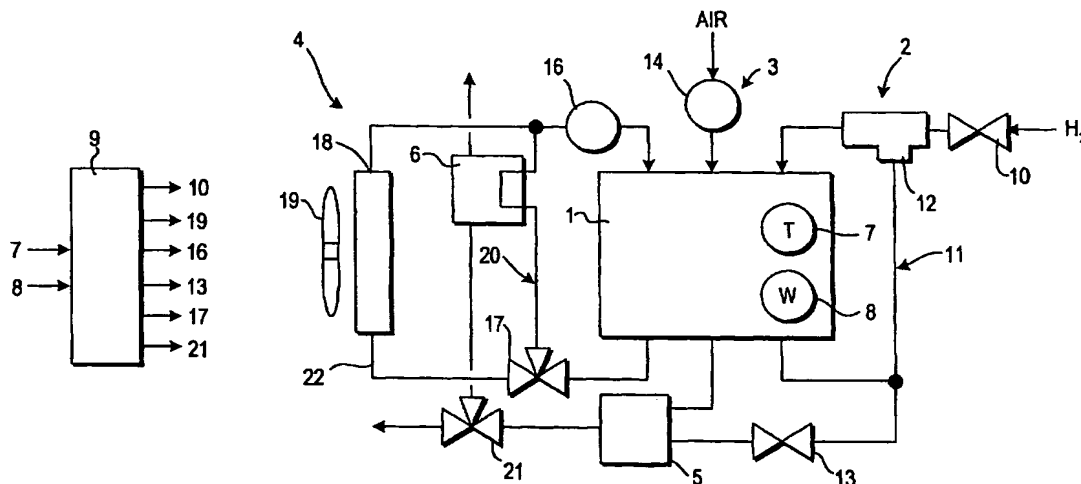
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(54) Title: FUEL CELL SYSTEM



(57) Abstract: A fuel cell system comprises a hydrogen supply system 2 which supplies hydrogen to a fuel cell 1, a heating medium supply system 4 which adjusts a temperature of the fuel cell 1 by causing a heating medium to recirculate into the fuel cell 1, a burner 5 which generates high-temperature combustion gas by burning hydrogen, a heat exchanger 6 which warms the fuel cell 1 during a cold start-up operation by providing the heating medium with the heat of the combustion gas such that the heating medium is heated, a purging valve 13 which causes gas inside the hydrogen supply system 2 to flow into the burner 5, and an exhaust three-way valve 21 for discharging the combustion gas without allowing the combustion gas to pass through the heat exchanger 6. During hydrogen purging, the combustion gas is discharged by the exhaust three-way valve 21 so as to bypass the heat exchanger 6.

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/ 03/13423

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 H01M8/04

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H01M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, INSPEC, COMPENDEX, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 02/056403 A (KADOWAKI MASATAKA ; SANYO ELECTRIC CO (JP); MIYAI KEIGO (JP); ODA KATS) 18 July 2002 (2002-07-18) claim 1	1-17
A	US 4 537 839 A (CAMERON DONALD S) 27 August 1985 (1985-08-27) column 2, lines 22-26,37-45 - column 3, lines 11-14,51-60	1-17
A	PATENT ABSTRACTS OF JAPAN vol. 0133, no. 71 (E-807), 17 August 1989 (1989-08-17) & JP 1 124962 A (FUJI ELECTRIC CO LTD), 17 May 1989 (1989-05-17) abstract	1-17
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- \*&\* document member of the same patent family

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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